

## CLAIMS

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1. A method of operating an authenticating server system for authenticating users at client terminals connected via a data communications network, to control access to a document stored on a resource server, said method comprising performing the following steps in said server system:
- storing authentication details of authorised users;
  - receiving authentication data for a user from a client terminal of the user, and validating said authentication data by reference to said stored authentication details;
  - issuing an identifier for the user's terminal to said terminal for storage thereon, the identifier being transmitted in such a manner that the identifier is retransmitted by said user terminal with document requests directed at said resource server;
  - storing status data indicating said identifier to be a validated identifier of a terminal of a currently authenticated user, in response to said authentication step; and
  - enabling said resource server to validate a request for said document from the user's terminal, which request includes said identifier, by checking said status data on receipt of said document request.
2. A method according to claim 1, wherein said identifier is transmitted in a cookie to said user terminal.
3. A method according to claim 1 ~~or 2~~, wherein said authentication step comprises receiving said identifier from said user terminal with said authentication data.
4. A method according to claim 3, wherein said authentication step comprises issuing a new identifier to said user terminal if said authentication data is invalid.

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5. A method according to claim 4, wherein said identifier comprises data indicating the number of times an invalid authenticator has been received from said user terminal.

5 6. A method according to claim 5, wherein said method comprises issuing no further identifier to said user terminal if an identifier received from said user terminal indicates that a predetermined number of invalid authenticators have been received from said user terminal.

10 7. A method according to <sup>Claim 1</sup> ~~any preceding claim~~, comprising timing out said identifier as an identifier of a terminal of a currently authenticated user if no document request is received from said user terminal for a predetermined period.

15 8. A method according to <sup>Claim 1</sup> ~~any preceding claim~~, comprising authenticating said user for access to a plurality of Web servers located in the same Internet domain; and

enabling each of said Web servers to validate document requests from the user's terminal, which requests include said identifier, by checking said status data on receipt of a document request.

20 9. A method of operating an authenticating server system for authenticating users at client terminals remotely connected via a data communications network, to control access to a plurality of resource servers, said method comprising performing the following steps in said server system:

25 storing authentication details of authorised users;

performing remote authentication of a user by reference to said stored authentication details and during said remote authentication step generating status data, distinguishing said user from other users which are not currently authenticated, and a secret encryption key shared with said user;

30 storing said status data in storage means accessible to said plurality of resource servers to check an authentication status of said user by using an identifier for the user's terminal received in a service request; and

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storing said shared secret key in a data store accessible by at least one of said resource servers for use during communications with said user.

10. A method according to claim 9, wherein said authenticating step comprises issuing a challenge to the user's terminal, receiving a response to said challenge, and verifying said response.

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11. A method according to claim 9 ~~or 10~~, further comprising updating said status data for an authenticated user following said storing step.

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12. A method according to claim 11, wherein said updating step is performed in response to a time-out associated with said status data.

13. A method according to claim 11, wherein said updating step is performed in response to access by one of said resource servers to said status data.

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14. A method according to claim 12 ~~or 13~~, wherein said updating step is performed in response to a request by the user's terminal.

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15. A method according to <sup>claim 9</sup> ~~any of claims 9 to 14~~, wherein said identifier is an IP address of the user's terminal.

16. A method according to claim 9, wherein said authentication step comprises issuing said identifier to the user's terminal.

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17. A method according to <sup>claim 9</sup> ~~any of claims 9 to 16~~, wherein said status data is stored in a data store which said resource servers are each able to access.

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18. A method according to <sup>claim 9</sup> ~~any of claims 9 to 17~~, wherein said authentication details include data identifying the rights of access of individual users to one or more of said application servers.

19. An authenticating server system adapted to perform the method of any preceding claim.

~~any preceding claim.~~

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